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June 11, 1954

Dr. Harris Isbell
United States Public Health Service
Lexington, Kentucky

Dear Dr. Isbell:

In continuation of our drug antagonism program, we have recently performed experiments to test the antagonism between the effects of corynanthine hydrochloride, Banthine, and LSD-25. We are sending you a sample of corynanthine in case you wish to repeat our experiments. Banthine is, of course, available on prescription.

In summary, a 15.0 mgm. dose of corynanthine taken orally 15-30 minutes before a dose of 40 micrograms of LSD-25 seemed to diminish or prevent most of the mental and psychological symptoms usually produced by LSD-25; at the same time, somatic and vegetative symptoms and signs of LSD-25 were largely unaffected or were increased in intensity. The protective effect of corynanthine persisted for only 1 to 2½ hours; subsequent 15.0 mgm. doses of corynanthine seemed to produce less protection than did the first dose, for a shorter period of time. Administration of corynanthine after LSD-25 had been taken gave little protection from the effects of LSD. Administration of Banthine (100 mgm. per os) and corynanthine (15 mgm. per os) 15 to 30 minutes before LSD-25 (40 micrograms) seemed to prevent even the somatic and visceral symptoms usually produced by LSD. The addition of Banthine to the regime, however, produced a "heavy," "drugged" feeling in the subjects. Corynanthine given alone in doses up to 45 mgm. per os, had no noticeable psychological or physiological effects. Subjective accounts of five of the experiments are attached.

Should you wish to investigate such drug combinations as these, we would suggest that you first attempt to confirm our results using the drugs and dose schedules given above; it is suggested that the Banthine be reduced to 50 mg. total dose. Modification of the present regime might then be tried; for example, the use of other adrenergic blocking drugs, other parasympathetic blocking agents (such as tincture of belladonna or atropine) or even ganglionic blocking agents (such as hexamethonium) might be worthwhile. Modification of the doses used in our trials and the time relationships between doses could, of course, be made.

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We look forward to hearing the results of any such "antagonism-experiments" such as these which you might be able to perform. It would be appreciated if you would send the usual letter to the above address in order to report any results of these antidoting experiments. In addition, it would be appreciated if you would send an original and a carbon of such reports.

Sincerely yours,

[redacted]

SG:mk

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